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FACSIMILE COVER LETTER

DATE: March 16, 2010

RECIPIENT FAX #: 571-270-4104

TO: **Examiner Tracie Green**

COMPANY: United States Patent and Trademark Office

RECIPIENT PHONE #: 571-270-3104

FROM: **Christopher P. Bruenjes**

SENDER PHONE #: 202-230-5162

TOTAL NUMBER OF PAGES INCLUDING COVER SHEET 8

MESSAGE:

Re: U.S. Patent Application No. 10/537,587
Inventor(s): Takashi WATANABE et al.

Attorney Docket No. 46884-5365 (210821)

Dear Examiner Green:

The attached claims are for Examiner's Amendment to gain allowance. Please call to verify receipt of this facsimile.

Sincerely,

Christopher P. Bruenjes

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DC01/ 2466796.1

PROPOSED CLAIM AMENDMENT

Listing Of Claims:

Claim 1 (Currently Amended): A method of producing a photo-cathode for emitting a photoelectron corresponding to incident light or a secondary-electron emitting surface for emitting secondary electrons corresponding to an incident electron, the method comprising the steps of:

preparing a container in which a layer comprised of constituent materials of the photo-cathode or secondary-electron emitting surface to react with an alkali metal is formed;

preparing an alkali metal generating device which includes an alkali metal generating agent as a supply source of an alkali metal, the alkali metal generating agent comprising: an oxidizer comprising at least one vanadate with an alkali metal ion as a counter cation; and a reducer for initiating a redox reaction with the oxidizer at a predetermined temperature to reduce the alkali metal ion;

setting the alkali metal generating device in a space continuing an inner space of the container;

depressurizing the space where the alkali metal generating device is set and the inner space of the container by a predetermined vacuum;

heating the alkali metal generating device set in the depressurized space to generate an alkali metal vapor in the depressurized space; [[and]]

guiding the alkali metal vapor generated from the heated alkali metal generating device, while controlling a temperature of the container, to an area where the layer is formed; and

wherein, in the alkali metal generating agent, the vanadate is expressed by a chemical formula RVO_3, where R is at least one metal element selected from the group consisting of Na, K, Rb, and Cs.

Claim 2 (Canceled): ~~A method according to claim 1, wherein, in the alkali metal generating agent, the vanadate is expressed by a chemical formula RVO_3, where R is at least one metal element selected from the group consisting of Na, K, Rb, and Cs.~~

Claim 3 (Previously Presented): A method according to claim 1, wherein, in the alkali metal generating agent, the reducer is at least one selected from the group consisting of Si, Zr, Ti, and Al.

Claim 4 (Previously Presented): A method according to claim 1, the alkali metal generating agent being of a powder form.

Claim 5 (Previously Presented): A method according to claim 1, the alkali metal generating agent being formed in a pellet form having a predetermined shape by compression molding.

Claim 6 (Previously Presented): A method according to claim 1, wherein the alkali metal generating device further comprises:

a case housing the alkali metal generating agent; and

a discharge port provided in the case and adapted for discharging the alkali metal vapor, from an interior space of the case housing the supply source, toward the exterior of the case.

Claim 7 (Previously Presented): A method according to claim 6, wherein the case is made of a metal.

Claim 8 (Previously Presented): A method according to claim 6, wherein the case comprises:

a hollow container of a metal having apertures at both ends and provided with the discharge port in a side face thereof; and

lid members of a metal covering the respective apertures at the both ends of the hollow container.

Claim 9 (Previously Presented): A method according to claim 6, wherein the case is a hollow container of a metal having apertures at both ends thereof,

wherein the apertures at the both ends of the hollow container are hermetically closed in a state in which the hollow container secures an interior space for housing the alkali metal generating agent, and

wherein the discharge port is provided in at least one of the both ends of the hollow container hermetically closed.

Claim 10 (Previously Presented): A method according to claim 6, wherein the alkali metal generating agent is formed in a pellet form having a predetermined shape.

wherein the case is comprised of a closed-end container of a metal having a recess for housing the alkali metal generating agent, and a lid member of a metal welded to the closed-end container in a state in which the lid member covers an aperture of the recess, and

wherein the discharge port of the case is formed in a non-welded portion between the closed-end container and the lid member.

Claim 11 (Previously Presented): A method according to claim 6, wherein the alkali metal generating device further comprises a glass ampule housing the entire case.

Claim 12 (Previously Presented): A method according to claim 6, wherein the alkali metal generating device further comprises a heating device for initiating the redox reaction of the alkali metal generating agent to generate the vapor of the alkali metal.

Claim 13 (Previously Presented): A method according to claim 12, wherein the heating device comprises a high-frequency supply for heating the alkali metal generating agent by high-frequency heating.

Claim 14 (Previously Presented): A photo-cathode for emitting a photoelectron corresponding to incident light, the photo-cathode comprising the alkali metal generated a method according to claim 1.

Claim 15 (Canceled).

Claim 16 (Previously Presented): A secondary-electron emitting surface for emitting secondary electrons corresponding to an incident electron, the secondary-electron emitting surface comprising the alkali metal generated by a method according to claim 1.

Claim 17 (Canceled).

Claim 18 (Previously Presented): An electron tube comprising a photo-cathode according to claim 14.

Claim 19 (Original): An electron tube according to claim 18, further comprising:

an electron multiplying part comprised of one or more dynodes each having a secondary-electron emitting surface for emitting secondary electrons in accordance with incidence of the photoelectron emitted from the photo-cathode; and

an anode for collecting the secondary electrons outputted from the electron multiplying part and extracting the collected secondary electrons as an electric current to the outside.

Claim 20 (Original): An electron tube according to claim 18, further comprising:

an anode for collecting the photoelectron emitted from the photo-cathode and extracting the collected photoelectron as an electric current to the outside.

Claim 21 (Original): An electron tube according to claim 18, said electron tube comprising an image tube having at least a fluorescent screen for converting the photoelectron emitted from the photo-cathode, into light.

Claim 22 (Original): An electron tube according to claim 18, further comprising a streak tube comprising:

an accelerating electrode for accelerating the photoelectron emitted from the photo-cathode;

a focusing electrode for focusing the photoelectron accelerated by the accelerating electrode;

an anode having an aperture through which the photoelectron focused by the focusing electrode can pass;

a deflecting electrode having a pair of electrode plates opposed to each other and adapted to be able to sweep the photoelectron having passed through the aperture provided in the anode, in a predetermined direction by a predetermined deflection voltage applied between the pair of electrode plates; and

a fluorescent screen for converting the photoelectron deflected by the deflecting electrode, into light.

Claim 23 (Previously Presented): An electron tube comprising an electron multiplying part comprised of one or more dynodes each having a secondary-electron emitting surface according to claim 16.

Claim 24 (Original): An electron tube according to claim 23, further comprising:

a photo-cathode for emitting a photoelectron corresponding to incident light, toward the electron multiplying part; and

an anode for collecting secondary electrons emitted from the electron multiplying part and extracting the collected secondary electrons as an electric current to the outside.

Claims 25-34 (Canceled).

Claim 35 (Previously Presented): A method according to claim 1, wherein the space, in which the alkali metal generating device is set, constitutes part of the inner space of the container.